Natural Heritage & Endangered Species Program

Commonwealth of Massachusetts
Division of Fisheries & Wildlife
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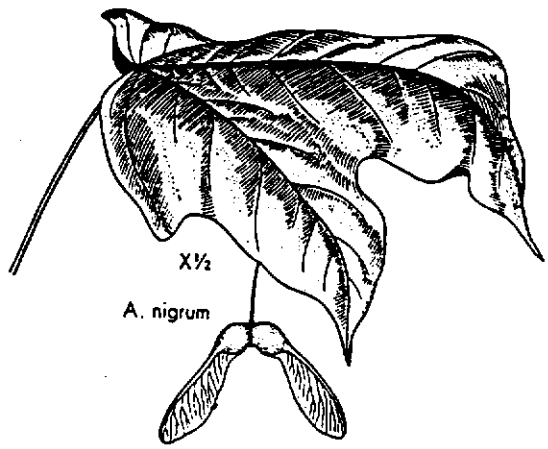
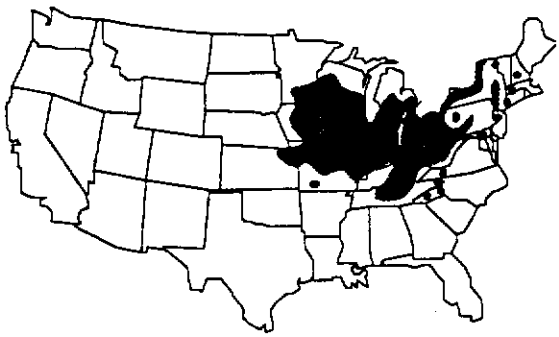
MASSACHUSETTS SPECIES OF SPECIAL CONCERN

BLACK MAPLE
(*Acer nigrum* Mich.)

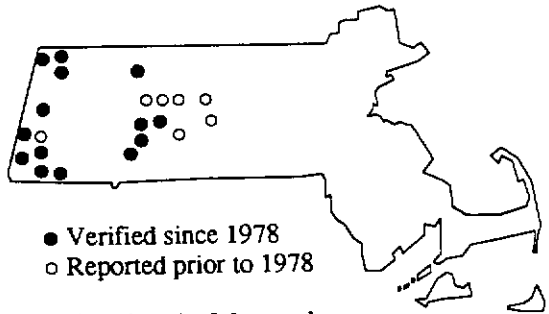


Gleason, H. A. The New Britton & Brown Illustrated Flora of the US & Adjacent Canada. New York Botanical Garden, 1952.

DESCRIPTION: Black maple—also commonly known as black sugar maple, hard maple, and rock maple—is a medium to large tree reaching heights of 21–34 m (70–110 ft). It has a straight central trunk when growing in the forest and a widely spreading branch system when growing in the open. The bark on black maple trees is smooth, gray, and thin on young trees. With age it becomes dark gray to almost black and thick (up to 2 cm, [0.8 in.]) with narrow furrows. Twigs are stout and orange-green when they first appear, becoming orange-brown the first winter, and then turning dull pale gray-brown the following season. The leaves, as with most maples, are simple, opposite, and deciduous; on black maple they are dark green above and yellowish-green, usually densely pubescent, below. Commonly they have somewhat drooping sides. They are usually 3-, rarely 5, -lobed, 12–15 cm (5–6 in.) in length and width, with a few obtuse or rounded teeth. The presence of stipules at the base of the black maple leaves helps distinguish this species from sugar maple. The leafstalk is oriented downwards rather than outward. The flowers of the black maple are similar to those of sugar maple: yellow with a broad 5-lobed calyx and no petals. They are borne on pendulous, hairy pedicels that are 3–7 cm (1–3 in) long, at the base of the newly emerging leaves. The flowers may be in separate clusters or in the same cluster as the leaves. There are 6–8 stamens in the male flowers and a single pistil in female flowers. Black maple flowers from late May through early June. The fruits are the typical maple paired samaras with wide-spreading papery wings, 1.2–2.5 cm (0.5–1 in.) long with a narrow to wide angle between the wings. They are red-brown and glabrous, becoming dry at maturity. They ripen in the fall with sugar maple (*Acer saccharum*), to which it is closely related and with which it hybridizes. In New England, seedfall occurs in late September and early October, depending on latitude and altitude. Heavy seed crops usually occur in 4-year cycles.



Documented Range of Black Maple



Distribution in Massachusetts

SIMILAR SPECIES IN MASSACHUSETTS: Black maple is sometimes considered to be a subspecies or variety of the sugar maple (*A. saccharum*), with which it hybridizes, and often occurs in the same habitats. Black maple differs in its darker, more furrowed bark and darker, densely hairy, 3-lobed leaves with characteristically drooping sides.

RANGE: Black maple occurs from New York and southern Quebec west through southern Ontario to central Michigan, northern Wisconsin, and southeastern Minnesota; south to Missouri; and east through Tennessee to western West Virginia, Maryland, and Pennsylvania. It occurs in small patches in North Carolina, New Jersey and New England. It was found historically in Delaware, but has been extirpated there.

HABITAT IN MASSACHUSETTS: Black maple prefers rich, moist soil in association with alluvial hardwood forests. It does not grow in acidic soils. Black maple is highly shade tolerant. All current sites in Massachusetts have mesic (moderately moist) soils, and most have either shade or filtered light conditions. Among the specific habitats in Massachusetts are several floodplain forests, various types of forested rocky slopes and outcrops, various rich wood communities, and former floodplain forests. Species commonly found growing with black maple in Massachusetts include sugar maple (*Acer saccharum*), basswood (*Tilia americana*), white and green ash (*Fraxinus americana* and *F. pennsylvanica*), sycamore (*Platanus occidentalis*), American elm (*Ulmus americana*), bitternut hickory (*Carya cordiformis*), hop hornbeam (*Ostrya virginiana*), various species of birch (*Betula*), leatherwood (*Dirca palustris*), and wild leek (*Allium tricoccum*). Rare Massachusetts species found with black maple include autumn coralroot (*Corallorhiza odontorhiza*), downy wood-mint (*Blephilia ciliata*), yellow oak (*Quercus muehlenbergii*), climbing fumitory (*Adlumia fungosa*) and crooked-stem aster (*Aster prenanthoides*).

POPULATION STATUS IN MASSACHUSETTS: Black maple is currently listed as a species of Special Concern in Massachusetts. As with all species listed in Massachusetts, individuals of the species are protected from take (picking, collecting, killing...) and sale under the Massachusetts Endangered Species Act. There are 22 current stations (discovered or relocated since 1978) in 14 towns and 7 historical stations (unverified since 1978). Occurrences are found only in western Massachusetts, where populations are generally have few individuals, although one population has about a hundred mature plants. Black maple is also considered rare in New Hampshire, Connecticut, New Jersey and Arkansas.

MANAGEMENT RECOMMENDATIONS: As with most rare plants, exact needs for management of Black maple are not known. The following advice comes from observations of the populations in Massachusetts, and some additional information from regeneration studies in Vermont. Black maple requires either shade or filtered light conditions. While competing vegetation can affect survival of the seedlings and saplings, seedlings do well in the shade and will grow well even after many years in the shade. In order to maintain the existing populations, every effort should be made to minimize fragmentation of the forest and disturbance of the forest canopy. Threats to black maple include habitat destruction. Maintaining the habitat and the plant community in which black maple occurs is the best strategy for long term continuing of the species at a site. Selective encouragement of black maple is not normally necessary.

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